

CLAIMS

What is claimed is:

- 5 2. A PCI card assembly, comprising:

 a framework;

 a PCI riser card connected to the framework
10 and disposed in a generally vertical
 orientation;

 a first PCI card coupled to the PCI riser
 card and oriented generally
15 perpendicular to the PCI riser card;

 a second PCI card coupled to the PCI riser
 card and disposed generally
 perpendicular to the PCI riser card,
20 the second PCI card extending from the
 PCI riser card in a direction opposite
 that of the first PCI card; and

a lever system to move the framework between an install position and an eject position.

5 2. The PCI card assembly as recited in claim 1,
wherein the first PCI card and the second PCI card are
standard size, full length PCI cards.

10 3. The PCI card assembly as recited in claim 1,
wherein the framework includes a center framework portion
to which the lever system is pivotably mounted.

15 4. The PCI card assembly as recited in claim 1,
wherein the lever system is mounted on a pivot and includes
a handle disposed on one side of the pivot and a gripping
member disposed on an opposite side of the pivot.

20 5. The PCI card assembly as recited in claim 4,
wherein the gripping member includes a recess sized to
engage a corresponding, stationary feature to facilitate
installation as the lever system is pivoted.

6. The PCI card assembly as recited in claim 4,
further comprising a connector configured to electrically

couple the first PCI card and the second PCI card to another printed circuit board.

7. The PCI card assembly as recited in claim 4,
5 wherein the lever system includes a pair of lever members.

8. The PCI card assembly as recited in claim 7,
wherein the framework further includes a first support end
and a second support end oriented generally perpendicular
10 to the center framework portion.

9. A server, comprising:

15 a chassis having a 1U profile; and
a PCI card assembly having a framework sized to fit within the chassis, the framework being configured to receive a pair of opposed PCI cards.

20 10. The server as recited in claim 9, further comprising a PCI riser card disposed between and coupled to the pair of opposed PCI cards.

11. The server as recited in claim 10, wherein the framework comprises a center framework portion to which the PCI riser card is mounted.

5 12. The server as recited in claim 11, wherein the PCI card assembly further comprises a lever system to move the PCI card assembly between an installed position and an eject position.

10 13. The server as recited in claim 12, wherein the lever system is pivotably mounted to the framework for pivotal motion about a pivot.

15 14. The server as recited in claim 13, wherein the lever system comprises a lever member having a gripping end disposed on one side of the pivot, further wherein the chassis includes a stationary feature configured for engagement with the gripping end.

20 15. The server as recited in claim 14, wherein the lever system comprises a handle connected to the lever member on an opposite side of the pivot from the gripping end, further wherein movement of the handle when the

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gripping end is engaged with the stationary feature causes lateral movement of the PCI card assembly.

16. The server as recited in claim 13, wherein the
5 lever system comprises a pair of lever members mounted for pivotable motion about the pivot and connected to each other by a handle.

17. The server as recited in claim 14, wherein the
10 first PCI card and the second PCI card are standard size, full length PCI cards.

18. The server as recited in claim 12, wherein the
first PCI card and the second PCI card are disposed in a
15 vertically staggered position.

19. The server as recited in claim 14, wherein the
framework includes a plurality of retention features
designed to engage the chassis when the framework is moved
20 to the installed position.

20. A method for deploying a pair of full length PCI cards in a low profile processor-based device, comprising:

mounting a pair of PCI cards to a PCI riser card disposed therebetween;

vertically staggering the pair of PCI cards; and

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providing a connector coupled to the PCI riser card through which the pair of PCI cards may be electrically coupled with the processor-based device.

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21. The method as recited in claim 20, wherein mounting comprises mounting the pair of PCI cards in a framework having a height permitting installation in a 1U device.

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22. The method as recited in claim 21, further comprising mounting the framework in a 1U server.

23. The method as recited in claim 22, further comprising connecting a lever system to the framework to provide mechanical advantage for engaging the connector.

24. The method as recited in claim 23, further comprising actuating the lever system to move the framework between an eject position and an installed position.

5 25. The method as recited in claim 23, further comprising providing the 1U server with a chassis having a stationary engagement feature configured for engagement with the lever system.

10 26. The method as recited in claim 25, further comprising forming the lever system with a pair of lever members connected by a handle.